

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

November 4, 2005

TO: Internal File

THRU: D. Wayne Hedberg, Permit Supervisor, Task Manager

FROM: Peter H. Hess, Environmental Scientist III/Engineering, Team Lead

RE: Escapeway Portal, Co-Op Mining Company, Bear Canyon #4 Mine, C/015/0025, Task ID #2352

SUMMARY:

The amendment to the mining and reclamation plan submitted as Task ID #2352 is a proposal to permit a third portal breakout from the Tank seam #4 Mine workings to the surface. Two portals currently exist, those being the main intake air portal, and the main return entry, which directly connects to the Mine's ventilation fan.

The escape entry that is being proposed would connect the 1st West Bleeder off of North Mains to the surface.

TECHNICAL ANALYSIS:

OPERATION PLAN

MINE OPENINGS

Regulatory Reference: 30 CFR Sec. 817.13, 817.14, 817.15; R645-301-513, -301-529, -301-551, -301-631, -301-748, -301-765, -301-748.

Analysis:

The application has been submitted with two maps; Plate 2-4G, SURFACE FACILITIES, and PLATE 3-4C, TANK SEAM. Plate 3-4C depicts the Mine workings in the #4 Mine, which is located in the Tank seam.

The application also contains revised text in red line / strike out form for the following pages; Chapter 3, pages 3-2, 3-86 and 3-87.

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Revisions to page 3-2 discuss sealing and backfilling of portals associated with the Bear Canyon #1 and #2 Mines located on the west side of Bear Canyon. The proposed escape way portal for the #4 Mine is only briefly mentioned.

Revised text indicates that all three portals associated with the #2 Mine located in the Tank seam have had permanent seals installed and the backfilling to approximate original contour completed.

At the #1 Mine, four of the six mine portals have been sealed and backfilled. The remaining two, which are associated with the #1 Mine, Blind Canyon seam, encompass a belt portal and an intake portal. As of the date of this review, the removal of the associated conveyor structure for the belt portal has not been completed. Both portals have had concrete block seals installed.

Pages 3-86 and 3-87 are relative to the recalculation of the bond estimate for the Bear Canyon site. These will not be evaluated within this document.

The following R645 coal mining rules are relative to mine openings. Each will be briefly discussed. The regulations will be addressed according to how they relate to the operational plan, or the reclamation plan of the Bear Canyon Mines mining and reclamation plan.

OPERATION PLAN

R645-301-515.311; “Each person who conducts UNDERGROUND COAL MINING and RECLAMATION ACTIVITIES will effectively support and maintain all surface access openings to underground openings, and secure surface facilities in which there are no current operations, but operations are to be resumed under an approved permit.” The cover letter received from the Permittee with the application indicates the following relative to the proposed emergency escape way portal; “for this emergency portal we are not planning on doing any earthwork for a pad or portal structures. We are planning on just making a hole big enough for a man to crawl out of in case the main rock tunnels leading into the #4 Mine cave or are buried by an avalanche as they were during construction.”

The Division feels that “a hole big enough for a man to crawl out of” does not meet the requirement of “effective support” mandated under **301-515.311**. The Permittee must submit a description (beams, lagging, etc) of the method used to support the ground in the vicinity of the surface / mine entry interface.

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R645-301-529.100; “Each shaft or other exposed underground opening will be cased, lined, or otherwise managed as approved by the Division”. The proposed escape way portal connecting the 1st West Bleeder to the surface (#4 Mine workings) does not meet the escape way requirements mandated in 30 CFR Part 75.380.

Although the Division does not have the authority to directly enforce 30 CFR Part 75.380, the Division does have the authority to require the Permittee to meet the same requirements mandated under 30 CFR Part 75.380 under the verbiage “or otherwise managed as approved by the Division”. The Division requires the Permittee to meet the same requirements for escape ways as those established by 30 CFR Part 75.380. Thus, the Permittee has not met the requirements of R645-301-529.100.

The Division is also concerned that an established, stable travel path has not been described from the surface where the portal breaks out to an area where employees can be picked up or transported for medical treatment. Any work required to establish this part of the escape way would mean an increase in disturbance over the undisturbed slope. This path must also take into consideration safety measures (ladders, maintenance of pathway, etc.).

R645-301-512. Certification

R645-301-512.100; Cross Sections and Maps

R645-301-512.110; Mine workings to the Extent Known;

R645-301-512.120; Surface Facilities and Operations

Although Plate 3-4C depicts the mine workings in the #4 Tank seam operation, the relationship of the proposed portal breakout to the surface is not depicted in a manner that can be understood on Plate 2-4G. Plate 2-4G shows the proposed portal breakout in a small four inch by four inch block in the upper left hand corner, Scale 1”=100 feet.

The Permittee needs to provide a legal description of the location of the proposed escape way portal, and depict the location of the proposed escape way portal in relationship to the #4 Mine portal pad. Both must be depicted on a topographic map of sufficient scale to allow any reviewer to obtain information necessary for this review.

RECLAMATION PLAN

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R645-301-542.700; Final Abandonment of Mine Openings

The application does not contain a description as to how the proposed portal will be reclaimed. Although Chapter 5, page 5-30, Mine Entries, contains a general description of how the concrete block seals will be constructed, and that the seals will be constructed 25 feet inside the portal mouth entry, there is no description as to how the Permittee intends to establish approximate original contour and backfill the 25 foot length of entry which will exist between the seal and the surface. There is no machinery access to this proposed portal; therefore, all backfilling activities must occur from inside the Mine.

R645-301-551; Casing and Sealing of Underground Workings

See the analysis above.

Findings:

The application is deficient. In accordance with the following R645 Coal Mining Rules, the Permittee must address the following:

- 1) **R645-301-515.311;** “Each person who conducts UNDERGROUND COAL MINING and RECLAMATION ACTIVITIES will effectively support and maintain all surface access openings to underground openings, and secure surface facilities in which there are no current operations, but operations are to be resumed under an approved permit.
- 2) **R645-301-529.100;** “Each shaft or other exposed underground opening will be cased, lined, or otherwise managed as approved by the Division...”
- 3) **R645-301-542.700; Final Abandonment of Mine Openings;**
R645-301-551, Casing and Sealing of Underground Workings: the Permittee must provide a description as to how they intend to place and compact the twenty-five feet of backfill to ensure meeting the requirements relative to back filling and grading and the establishment of approximate original contour at the reclaimed escape portal surface area. Drawings depicting final surface configuration must be included.
- 4) **R645-301-512.110; Mine workings to the Extent Known; 301-512.120 Surface Facilities and Operations;** The Permittee needs to provide a legal description of the location of the proposed escape way portal, and depict the location of the proposed escape way portal in relationship to the #4 Mine portal pad. Both must be depicted on a topographic map of sufficient scale to allow any reviewer to obtain information necessary for this review.